

C. M. SYMONDS.

NOZZLE.

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Patented Jan. 10, 1911.

981,326.

Fig. 1

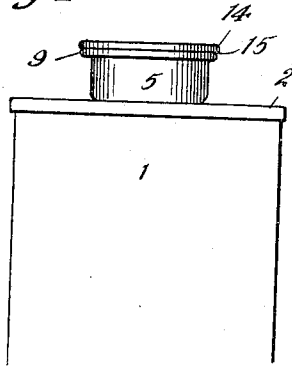


Fig. 2

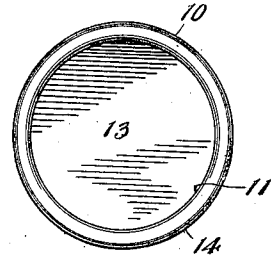


Fig. 3

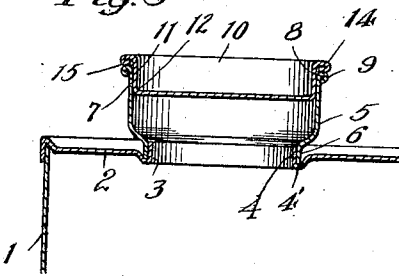
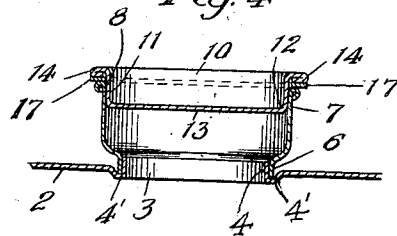


Fig. 4



Witnesses:

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UNITED STATES PATENT OFFICE.

CLARENCE M. SYMONDS, OF SAN ANSELMO, CALIFORNIA, ASSIGNOR TO AMERICAN
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NOZZLE.

981,326.

Specification of Letters Patent.

Patented Jan. 10, 1911.

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To all whom it may concern:

Be it known that I, CLARENCE M. SYMONDS, a citizen of the United States, residing in San Anselmo, in the county of Marin and State of California, have invented a new and useful Improvements in Nozzles, of which the following is a specification.

My invention relates to improvements in nozzles for cans or other vessels.

10 The object of my invention is to provide an improved construction of pouring nozzle for cans, which may be readily closed liquid tight, which may be conveniently opened, in which the nozzle as a whole will
15 be much shorter in length than the screw cap nozzles heretofore in use, and which will overcome the difficulty and annoyance heretofore experienced in the practical use of screw cap nozzles from the screw caps sticking fast so that they cannot be unscrewed or opened, in which the cap or closure member will not be liable to become loosened or disengaged and which at the same time will
20 be exceedingly simple of construction, composed of few parts, and capable of being manufactured at slight cost and with a minimum amount of material.

My invention consists in the novel construction and combination of parts and devices by which this object or result is practically accomplished as herein shown and described and more particularly specified in the claim.

30 In the accompanying drawing forming a part of this specification, Figure 1 is a side elevation showing a portion of a can provided with a pouring nozzle embodying my invention. Fig. 2 is a top or plan view. Fig. 3 is an enlarged vertical section through the
40 nozzle and Fig. 4 is a view similar to Fig. 3 showing a packing interposed between the cap or closure member and the nozzle member.

In the drawing, 1 represents a sheet metal can having its top head 2 furnished with an opening 3 surrounded by an annular flange 4 and channel or seat 4' for receiving a pouring nozzle.

50 5 is my improved pouring nozzle, the same consisting of a one piece cylindrical shell having a contracted lower end 6 to fit the seat 4' and flange 4 of the can head and to enable it to be readily soldered there-

to. The nozzle 5 is short in length and has a substantially cylindrical friction seat wall 7 terminating at its upper end in a slightly flaring or beveled portion 8, and provided at its extreme upper end with an externally projecting curled flange or roll 9 forming a pry-off shoulder on the nozzle member to facilitate the removal of the friction cap member 10.

The friction cap closure member 10 has an upwardly projecting annular friction seat wall 11, which is slightly rounded or beveled at its lower portion 12 where it joins integrally with the flat or disk portion 13 of the cap. The friction closure cap 10 has at its upper end an annular externally projecting curled or rolled flange 14, which preferably slightly exceeds in diameter the external curled edge or roll 9 on the nozzle member 5. When the friction cap closure member 10 of the nozzle is forced home in the nozzle member as illustrated in Figs. 1 and 3 of the drawing, an annular pry-off crevice or groove 15 is left between the annular rolls on the nozzle member 5 and cap or closure member 10 for insertion of a leverage device for prying off the cap or closure member. As the cap or closure member 10 and the nozzle 5 are thus both furnished with strong, rigid externally projecting annular rolls or curled edges of substantially the same diameter, the cap is in practice very readily and easily removed by use of a suitable leverage implement, however tightly or rigidly the cap may be stuck to the nozzle member by reason of the sticky, gummy or viscous materials contained in the can. At the same time, the friction cap produces a perfect and liquid tight closure for the nozzle. As both the nozzle and its cap may be made extremely short in length, the nozzle as a whole projects but slightly above the upper end of the can as compared with screw cap nozzles heretofore generally in use, and this not only enables both members of the nozzle to be very cheaply manufactured, but also lessens the danger of accidental loosening or displacement of the cap or closure member.

100 If desired, as illustrated in Fig. 4, a suitable packing 17 may be interposed between the cap 10 and nozzle member 5, but ordinarily I find no packing necessary for

effecting a liquid tight closure whatever may be the nature of the liquid contained in the can.

I claim:—

- 5 In a pouring nozzle can, the combination with a top head having a pouring opening and cylindrical upturned nozzle-seat flange and an annular nozzle-seat channel surrounding said flange, of a short, hollow,
10 seamless pouring nozzle member projecting above said top head, and having a cylindrical contracted lower end surrounding said flange and fitting in said annular nozzle seat channel of the top head, said nozzle
15 member having a seamless friction seat wall and an external annular roll at its upper

end, and a friction cap closure member having an upwardly extending friction seat wall fitting within said nozzle member and provided at its upper end with an external
20 annular roll, said external annular rolls on the nozzle member and cap member being spaced apart when the cap is forced home and serving as leverage shoulders for loosening and removing said closure member, 25
said closure member fitting and nesting within said nozzle member, substantially as specified.

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Witnesses:

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